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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/008,389	11/06/2001	Nobuhiko Oda	YKI-0079	2991

23413 7590 07/26/2002

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EXAMINER
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LE, THAO X

ART UNIT	PAPER NUMBER
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2814

DATE MAILED: 07/26/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/008,389

Applicant(s)

ODA ET AL.

Examiner

Thao X Le

Art Unit

2814

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 02 July 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) 1 and 2 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 3-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election without traverse of invention group II claims 3-5 in Paper No. 7 is acknowledged.

### ***Specification***

2. The disclosure is objected to because of the informalities: 'numeral 63', page 2 line 8 is not corresponding to Fig. 1A-1E. This number should be 53.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

3. Claim 3 is rejected under 35 U.S.C. 102(a) as being anticipated by Applicant Admitted Prior Art (APA).

Regarding to claim 3, APA discloses in the specification pages 1-4, fig. 1A-1E, a method for manufacturing a bottom gate-type thin film transistor on a transparent insulating substrate, comprising the step of: forming a gate electrode 52, page 2 line 7, on a transparent substrate 51, page 2 line 6, forming a gate insulating film 63(53), fig. 1A, page 2 line 8, on gate electrode, forming a semiconductor layer 54, page 2 line 11, on

gate insulating film, forming a mask 56/57/58, fig. 1B-1D, corresponding to gate electrode, doping impurities selectively into semiconductor layer, fig1B-1D, using mask, and forming an interlayer insulating film 59, page 3 line 11, after removal of mask, fig. 1E.

4. Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over APA as applied to, and further in view of US Patent 5,814,530 to Tsai et al.

Regarding to claims 4-5, the APA does not expressly discloses the method further comprising the steps of removing the residue of mask together with a native oxide film formed on semiconductor layer by a dilute hydrofluoric acid before formation of mask. However, Tsai reference discloses the method further comprising the steps of removing the residue of mask together with a native oxide film formed on semiconductor layer by a dilute hydrofluoric acid, step 312 fig. 9, column 13 line 2, before formation of mask At the time of the invention was made; it would have been obvious to one of ordinary skill in the art to combine the cleaning the native oxide method of Tsai with APA, because it would have helped to ensure the a stable interface can be formed with the next layer, column 13 line 3-4.

### *Conclusion*

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. US 5,733,804
- b. US 5,229,334
- c. US 6,380,011

Art Unit: 2814

- d. US 5281,546
- e. US 6388,291
- f. US 6,372,618
- g. US 6,017,779

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thao X Le whose telephone number is 703-306-0208. The examiner can normally be reached on M-T from 7:00 AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Olik Chaudhuri can be reached on 703-306-2794. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

Thao X. Le  
July 17, 2002



PHAT X. CAO  
PRIMARY EXAMINER